APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/334,354	06/16/1999	JUNJI TAJIME	P/2054-107	5240

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EXAMINER
LEE, RICHARD J

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 06/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

		Application No.	Applicant(s)	
Office Action Summary		09/334,354	Tajime et al	
		Examiner Richard Lee	Art Unit 2613	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____3____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Apr 8, 2002* .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-18* is/are pending in the application.

     4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-18* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☒ The proposed drawing correction filed on *Apr 8, 2002* is: a) ☒ approved b) ☐ disapproved by the Examiner.

     If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All b) ☐ Some* c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     *See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

     a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____   6) ☐ Other:

1.   The Examiner wants to point out that in view of the amendment filed April 8, 2002 and

upon further consideration/review, the status of the claims have changed from the previous Office

Action (Paper no. 4). Consequently, the following new grounds of rejections are deemed proper.

The Examiner apologizes for any inconvenience that this may have caused for the applicants.

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3.   Claims 1-14 and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohira

et al of record (6,208,689).

        Ohira et al discloses a method and apparatus for digital image decoding as shown in

Figures 18, 19, 24, 29, 30, 49-53, and the same moving picture decoding method and apparatus

as claimed in claims 1-14 and 16-18, comprising the same compression means (i.e., 107a of

Figures 18 and 24, 112a of Figure 49, see 107b of Figures 29 and 30) for compressing a decoded

image and storing the resulting compressed image in storage frame memory means (i.e., 103 of

Figures 18 and 49); expansion means (i.e., see 108, 109 of Figure 18; 113a, 114a of Figure 49)

for expanding the compressed image stored in the storage means; quantization control means (see

Figures 18, 19, 24, 29, 30, 50-52, column 13, line 61 to column 14, line 64, column 15, line 56 to

column 16, line 45, column 24, line 37 to column 25, line 12) for controlling quantization on

compression in the compression means; access width control means for applying bit allocation

control to the quantization control means so as to be in conformity with the number of bits of an

access unit of the storage means based on an occupied content of the storage means, the access

width control means comprises means for controlling the quantization control means so that the

number of coded bits of one or a plurality of compression processing blocks of image processed in

the compression means, or for every control unit of compression processing is in conformity with

the number of bits of an access unit of the storage means in case that the coded data exceeds the

number of bits of an access unit of the storage means or is lacking, the access width control means

conducts control using information included in the compressed stream, the access width control

means applies control to the quantization control means so that, compared with the number of bits

of an access unit of the storage means, in the case that the allocated number of bits of coded data

of a compression block exceeds the number of bits of the access unit of storage means or is less

than the number of bits of the access unit of the storage means, the allocated number of bits is

conformed to be equal to or less than the number of bits of the access unit of the storage means

by subtracting a predetermined number of bits from the allocated bits of coded data of the

compression processing block or by increasing the number of allocated bits by the predetermined

number of bits, whereby the coded data is enabled to be extracted from the storage means with

one access occurrence (i.e., data in the compressing section 107a of Figure 18 are compressed

based upon the compression rate information 157 from the compression rate judging section 106,

the compression rate judging section thereby providing the rate of compression in connection with

the storage capacity, i.e. number of bits, of the storage memory 103, and bit allocation control to

the quantization control means is being provided within 107a of Figures 18, 24, 107b of Figures

29, 39, and 112a of Figures 49 and 50, and see column 14, lines 3-64); the quantization control

means controls quantization in the compression means based on access width information from

the access width control means so that generated information content for one or a plurality of

compression processing blocks of the image processed in the compression means or for every

control unit of compression processing is equal to or less than the number of bits of an access unit

of the storage means in the case that the generated information content exceeds the number of bits

of an access unit of the storage means (i.e., compression rate judging section 106 provides the

rate of compression in connection with the storage capacity, i.e. number of bits of the storage

memory 103, and the compressing section 107a or 107b which includes quantization control

based on access width information compresses the data based upon the compressed rate

information provided by compression rate judging section, see Figures 18, 24, 29, 30, 49-52,

column 14, lines 3-64); wherein the compression means and expansion means conduct

compression and expansion, respectively, in accordance with a pixel difference prediction

encoding system (see 107a of Figure 24, 107b of Figures 29 and 30, column 4); wherein the

quantization control means (see 107b of Figures 29 and 30, 703a of Figures 50 and 51) controls

quantization by preparing a plurality of quantizers (i.e., 121a-d of Figures 29 and 30; 703a of

Figure 51) different from each other and a plurality of quantization characteristic tables, a

quantization characteristic table (see 700 of Figure 50) being shared by the plurality of quantizers;

wherein the compression means and expansion means conduct compression and expansion,

respectively, in accordance with an orthogonal translation encoding system (see column 4, column

9, lines 1-13); the compression means controls quantization characteristics used for quantizing the

decoded image, based on control by the quantization control means (see Figures 29, 30, 50, 51)

detecting a number of coded bits for one or a plurality of compression processing blocks of data

or for every control unit of compression processing (i.e., 107a of Figures 18 and 24), and

controlling the number of coded bits so that the number of coded bits is in conformity with the

number of bits of an access unit of a storage means (i.e., 103 of Figure 18) when the detected

number of coded bits exceeds the number of bits of an access unit of the storage means or is

lacking, wherein the step of controlling uses information from an external compressed data stream

(see column 13, line 61 to column 14, line 64, and 106 of Figure 18).

4.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohira et al as

applied to claims 1-14 and 16-18 in the above paragraph (3), and further in view of Nakajima et al

of record (6,243,421).

Ohira et al discloses substantially the same moving picture decoding method and apparatus

as above, but does not particularly disclose the compression means comprising a subtracter, a

quantizer, an encoder, an inverse quantizer, an adder and a predictor, a prediction error obtained

in the subtracter by subtraction operation between the decoded image and a predicted value from

the predictor is supplied to the quantizer, under control of the quantization control means, the

quantizer quantizes the prediction error and supplies the quantized result to the encoder and the

inverse quantizer, the encoder encodes an output from the quantizer and outputs the encoded

result to the storage means, and inverse quantizer and local decoding are conducted in the inverse

quantization, the adder and the predictor, as claimed in claim 15. However, Nakajima et al

discloses an apparatus for decoding coded video data with reduced memory size as shown in

Figures 2 and 3, and teaches the conventional compression means comprising a subtracter (20 of

Figure 3), a quantizer (21 of Figure 3), an encoder (22 of Figure 3), an inverse quantizer (25 of

Figure 3), an adder (23 of Figure 3) and a predictor (24 of Figure 3), a prediction error (i.e.,

output of 20 of Figure 3) obtained in the subtracter by subtraction operation between the decoded

image and a predicted value from the predictor is supplied to the quantizer, under control of the

quantization control means, the quantizer (i.e., 21 of Figure 3) quantizes the prediction error and

supplies the quantized result to the encoder (22 of Figure 3) and the inverse quantizer (25 of

Figure 3), the encoder encodes an output from the quantizer and outputs the encoded result to the

storage means (i.e., 6 of Figure 2), and inverse quantization and local decoding are constructed in

the inverse quantization, the adder, and the predictor (see Figure 3). Therefore, it would have

been obvious to one of ordinary skill in the art, having the Ohira et al and Nakajima et al

references in front of him/her and the general knowledge of video compression systems, would

have had no difficulty in providing the compression means as shown in Figure 3 of Nakajima et al

including all the components as claimed in place of the compression system 107a of Figure 18 of

Ohira et al for the same well known video compression with quantization control purposes as

claimed.

5.   Regarding the applicants' arguments at page 4 of the amendment filed April 8, 2002

concerning in general that "... Ohira, on the other hand, teaches that the compression rate judging

section 106 determines the compression rate based on size information of the inputted image ...

Ohira is silent as to the number of bits of an access unit of the disclosed frame memory 103, and

hence is indifferent as to controlling the number of coded bits to correspond with the number of

bits of such an access unit ...", the Examiner respectfully disagrees. Applicants' attention are

directed to column 14, lines 8-28 of Ohira et al for teachings of the compression rate judging

section providing the rate of compression in connection with the storage capacity of the frame

memory 103. As such, it is submitted again that Ohira et al shows the same detecting a number of

coded bits for one or a plurality of compression processing blocks of data or for every control unit

of compression processing (i.e., 107a of Figures 18 and 24), and controlling the number of coded

bits so that the number of coded bits is in conformity with the number of bits of an access unit of a

storage means (i.e., 103 of Figure 18) when the detected number of coded bits exceeds the

number of bits of an access unit of the storage means or is lacking, wherein the step of controlling

uses information from an external compressed data stream (see column 13, line 61 to column 14,

line 64, and 106 of Figure 18) as claimed.

6.   **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry) (for

informal or draft communications, please label "PROPOSED" or

"DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington. VA., Sixth Floor (Receptionist).

7.　　　Any inquiry concerning this communication or earlier communications from the examiner
should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can
normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be
directed to the Group customer service whose telephone number is (703) 306-0377.

RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

6/20/02